

REMARKS

Claims 2-7 are pending in the present application and are rejected. Claim 7 is herein amended.

Applicants' Response to Claim Rejections under 35 U.S.C. §103

Claims 2, 4, 5 and 7 were rejected under 35 U.S.C. §103(a) as being unpatentable over Balasubramanian et al. (WO 00/06770) in view of Bruchez et al. (U.S. Patent Application No. 2001/0034034).

It is the position of the Office Action that Balasubramanian discloses the invention as claimed, with the exception of teaching spatially addressing the beads by an antigen-antibody reaction. The Office Action relies on Bruchez to provide this teaching.

Applicants respectfully submit that the combination of Balasubramanian and Bruchez does not disclose or suggest the invention as recited by present claim 1. Present claim 1 recites that "said beads-ID recognizing address linkers are specific to each of said beads." Support for this amendment is found at least at page 3, lines 23-25. The beads-ID recognizing address linkers 3 are specific for each bead 1, and the beads-ID recognizing address linkers 3 are corresponding antigen-antibody pairs with the addressing probe proteins 12. As a result, the location and identity of each of said beads can be determined based on these antigen-antibody reactions and the detected fluorescent tags 5.

On the other hand, in Balasubramanian, "addressing" the array is not done by an interaction between the microsphere 1 and the substrate. Attachment of the beads in

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Balasubramanian is via a streptavidin/biotin reaction. This reaction is non-specific in that all microspheres are only labeled with streptavidin, and the entire substrate is only labeled with biotin. Additionally, all polynucleotides are only labeled with biotin. See page 14, line 29 to page 15, line 15. Thus, there is no specificity in the manner in which the microsphere attaches to the substrate or in which the polynucleotide attaches to the microsphere. Thus, the combination of cited art does not disclose or suggest that "said beads-ID recognizing address linkers are specific to each of said beads." Instead, in Balasubramanian, "addressing" is conducted by detection of the polynucleotides or the fluorescent tags. See page 9, lines 24-26; page 10, line 22 to page 11, line 24. Accordingly, Applicants respectfully submit that the combination of Balasubramanian and Bruchez does not disclose or suggest the invention as claimed. Favorable reconsideration is respectfully requested.

Claim 3 was rejected under 35 U.S.C. §103(a) as being unpatentable over Balasubramanian in view of Bruchez and further in view of Collier (U.S. Patent No. 5,985,548).

It is the position of the Office Action that the combination of Balasubramanian and Bruchez discloses the invention as claimed, with the exception of stirring beads. The Office Action relies on Collier to provide this teaching.

In response, Applicants respectfully submit that Collier does not make up for the teachings that Balasubramanian and Bruchez lack, as discussed above. Accordingly, Applicants respectfully submit that claim 3 is patentable at least due to its dependency on claim 7, which

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Applicants submit is patentable for at least the reasons discussed above. Favorable reconsideration is respectfully requested.

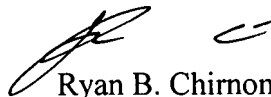
For at least the foregoing reasons, the claimed invention distinguishes over the cited art and defines patentable subject matter. Favorable reconsideration is earnestly solicited.

Should the Examiner deem that any further action by applicants would be desirable to place the application in condition for allowance, the Examiner is encouraged to telephone applicants' undersigned attorney.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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